



# AAPG

## Research LAUNCHER Program

### About You

First Name: KELVIN IKENNA Last name: CHIMA

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Check which apply to you:  Student  Non Student  Independent Researcher  Professor  Corporate Research  Other

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Short Bio: (250 words or less)

I have BSc in Geology & Exploration Geophysics from Ebonyi State University, Abakaliki, Nigeria, where I emerged the best graduating student of my department with CGPA of 4.42 (on a 5.0 scale) in 2010. I am currently pursuing my Masters in Petroleum Geology at Nnamdi Azikiwe University, Nigeria. I received a grant-in-aid of \$1000 from SEG in 2010 for my undergraduate project research. I presented the work at Nigerian Mining & Geosciences Society (NMGs) and it won a 3rd prize position in 2011. The research was later published in my school faculty journal. I am a very hard working young man, who never relents until a set task is achieved. I have excellent interpersonal communication and computer skills. I look forward to joining one of the E & P companies anywhere in the world to fully explore my career in geology.

### Project Description

1. Name of project Well-Log Sequence Stratigraphy of 8 (P-W) fields within the Coastal swamp depobelt, Niger Delta Basin, Nigeria.

2. Brief synopsis/areas of geosciences or engineering (50-75 words)

This research will integrate well-logs, high resolution biostratigraphic, 3D seismic and core data (if available) to build a chronostratigraphic framework of the 8 selected fields, correlate and map the reservoirs, seals and structural, and stratigraphic traps within the depositional sequences. Paleobathymetric data from benthic forams and log signatures will be used to interpret the depositional environments and system tracts of sediments penetrated by the selected wells. Structural and stratigraphic traps will be interpreted on the 3D seismic data.

3. Bullet list of 5-7 main outcomes/goals.

1. Build a chronostratigraphic framework across the selected fields 2. Identify and correlate the main depositional sequences 3. Identify and correlate the reservoirs and seals along strike and dip section to establish their lateral and vertical extent 4. Interpret the depositional environments of the interpreted lithofacies 5. Predict the reservoir quality of the sands

4. In two or three sentences, describe why your research is important. Please mention who will benefit from your work.

This research will provide a technical guide to E & P industries operating within the Niger Delta Basin in making economically viable drilling decision. It will also serve as a reference material to both the academia and the industry in future research work.

5. Timeline with milestones (12 month/18 month) Having successfully completed my course work, it would take me 6 months to complete this

research work. 3 months for field work (geological mapping exercise); 1 month for data gathering and 2 months for the research proper and report writing.

6. Funding amount needed to achieve first basic goals within 12 months. Please provide a brief summary overview of your budget. List costs of 5-10 main items. Amount needed is \$2000. 1. Field mapping (\$1350); 2. Softwares training-Petrel and ArcGIS (\$350); 3. Transport to and fro National Geological Data base and oil companies for data collection (\$200); 4. Logistics (\$100)

7. In the process of gaining background knowledge in the field of your proposed research, who did you find to be the top two or three researchers? What are the main concepts that are being explored? Please briefly describe. Prof Orajaka, I.P., Dr. Okoro, A.U., and Dr. Ozumba, B.M., are my supervisors. The concept of sequence stratigraphy would be explored in the analysis of well and seismic data from the 8 selected fields within the study area with a view to correlating and mapping the reservoirs and seals, and structural trapping styles.

8. Please provide a photo of yourself and a photo related to your proposed project. It will be very helpful in publicizing your project and potentially securing funding.

9. Who will benefit? This research work will benefit both the industry and academia as it will be published Online in AAPG website for researchers to download.

### AAPG Research LAUNCHER supporters receive

The opportunity to work directly with you and receive reports, information, and findings, depending on the level of support.

### The Deal

The researcher agrees to:

- ❖ Develop a brief public presentation on the research to be made available to AAPG
- ❖ Share an annotated bibliography and review of relevant published articles
- ❖ Present research findings on project at an AAPG Forum, GTW, or Research Symposium
- ❖ Write a detailed report on the results of your research to be made available to LAUNCHER supporters
- ❖ Write a extended abstract on the results of your research to be made available to AAPG

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Thank you for submitting your research proposal to the AAPG Research LAUNCHER Program. Your proposal will be reviewed and upon acceptance you will be contacted by AAPG Education/Research. If your proposal is accepted, we will publicize your proposal and encourage funders to contact you directly. AAPG does not guarantee funds nor have any connection with the success or failure of the endeavor. The goal is to support scientific research in the petroleum geosciences and engineering and launch the next generation of geological advances.

Kelvin Ikenna Chima  
Research Candidate (print)                      20/05/2014  
Date

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AAPG Education/Research (print)                      Date



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Research Candidate (sign)                      20/05/2014  
Date

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AAPG Education/Research (sign)                      Date

### AAPG Education/Research

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